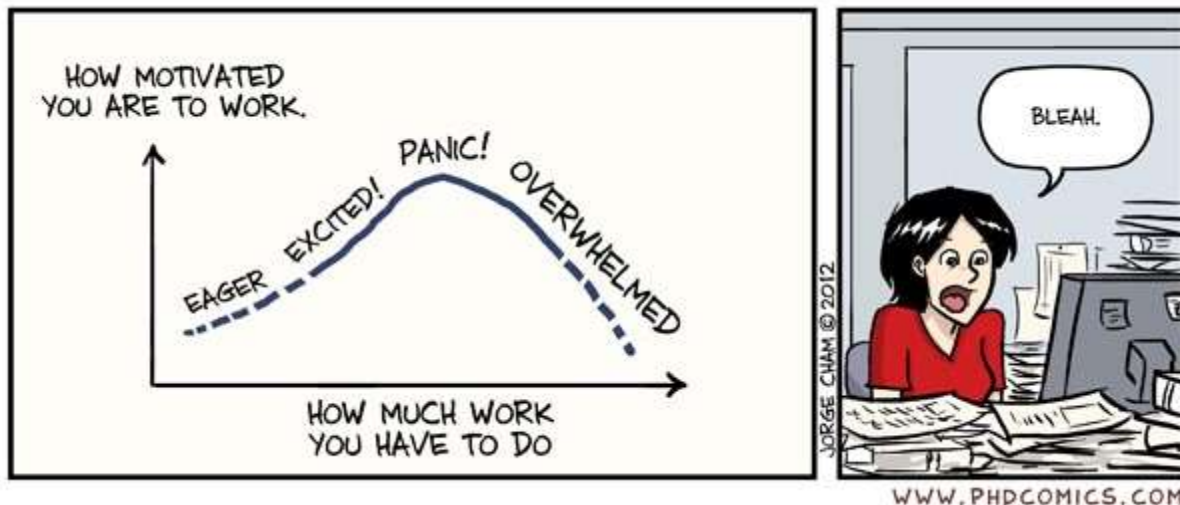# Top tips for starting a new research topic: systematic quantitative literature reviews

- POSTED BY **ADMIN**

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Starting out in a new field of research can be really tough, in particular finding your own place within it. There is an overwhelming amount of literature to get your head around, which can be intimidating task for seasoned researchers, let alone PhD students who are just starting out.

Often one of the first tasks PhD students are recommended to undertake is a literature review. Traditionally literature reviews take a narrative approach, summarising a large body of evidence that tell a story about the chosen research topic. This approach relies on the expertise and experience of the author, and can be quite the challenge if you are new to the field. With little guidance on how to conduct narrative reviews students can find themselves swamped with literature well outside the scope of their intended topic.



Fortunately more structured approaches to conducting literature reviews are now emerging, which we think are of great use to PhD students and early career researchers. In particular Catherine Pickering and colleagues have developed an approach known as systematic quantitative literature reviews.

The reason that systematic approaches are useful for literature reviews is because they ensure a transparent search methodology, help minimise bias thus providing credibility and a comprehensive summary of the literature.

Systematic quantitative literature reviews involve fifteen stages, which sounds like a lot, but these are really discrete, short steps that will help save you time in the long run. Pickering's team have a methodological paper on this approach and provide some great YouTube clips to help get your head around the process.

The reason why you might want to undertake such an approach is it provides a really clear and defensible methodology for reviewing literature. The final steps of this process also allow you to confidently quantify gluts and gaps in literature, and quantify other interesting patterns like where, when and how the literature on your research topic has evolved. There are some great examples of student papers here, here and here that have adopted this approach in order to get their reviews published.

Even if you decide that undertaking a full systematic quantitative literature review is a little too much, you can utilise aspects of their approach to help you in whatever type of review you choose. For example there are some great tips for how to search for literature using online databases (don't just use Google Scholar!). We also like the recommendations on how to construct your own review database, which can be as simple as an Excel spreadsheet and can be extremely useful to identify knowledge gaps in your research topic. Finally the advice on how to extract consistent and relevant information from papers (step 12 of the process) struck us as really worthwhile.

Happy reviewing and writing!